



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,168	11/06/2000	David Cameron	97-1165	8164

23413 7590 05/09/2003

CANTOR COLBURN, LLP  
55 GRIFFIN ROAD SOUTH  
BLOOMFIELD, CT 06002

EXAMINER

ABRAMS, NEIL

ART UNIT PAPER NUMBER

2839

DATE MAILED: 05/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/707168

Applicant(s)

Examiner

N. Abrams

Group Art Unit

2839

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on 4-25-03

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

☒ Claim(s) 2-92 is/are pending in the application.

Of the above claim(s) 37-60 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-56, 61-92 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some\* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other \_\_\_\_\_

Office Action Summary

Art Unit: 2839

In this case an initial restriction requirement was made between group I, claims 1-60, 69-92 and group II, claims 61-68. An election was made of Group I.

Upon further review, it was decided that the above restriction should be withdrawn and a new restriction, based on different groupings, as set below, should be required. This was communicated to the attorney on April 24, 2003.

Restriction to one of the following inventions is required under 35 USC 121.

I. Claims 1-56 and 61-92 drawn to an apparatus and method for downhole electrical connection, class 439/191.

II. Claims 57-60 drawn to downhole connector usable for electrical or optical connection, class 385.

The inventions are distinct, each from the other because:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions, the inventions are not to be used together.

Because these inventions are distinct and have acquired a separate status as shown by their different classification restriction for examination purposes is proper.

In a telephone conversation on April 24, 2003 the attorney, Mr. Murphy elected Group I, <sup>without traverse</sup> claims 2-56 and 61-92. Non-elected claims should be canceled in next response.

Art Unit: 2839

Title objected to as unclear. It could be changed to "Downhole well string with auxiliary electrical connector".

Abstract objected to as lacking detail. A new abstract on a separate sheet is required. Numerals could be included. It should refer to --upper section (14) being mechanically and electrically joined to an intermediate or adapter section (20) with electrical connectors (26) for being joined to lower section (12) connectors and having auxiliary connectors (18') that may be protected by a cover (30) and are to remain unmated and available for future use. The upper section (14) may be removed leaving the intermediate section (20) in place whereby unmated connectors (18<sup>6</sup>) become available to be joined to connectors of a new second section. Connections may be made by use of a piercing pin (48) or by using coils (122) to melt the connectors. <sup>--</sup>Other language could be used to set forth these concepts.

Applicants are asked if the "contact melting" feature of the general type disclosed is known in the prior art and discuss closest prior art. Note that this feature is not discussed in summary of the Invention.

Response should include proper drawing sheets for figs. 4, 5, 7, 8. Current ones cannot be photocopied for examination use.

Claims 19-25, 86-89, 61, 8 and 75 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Features of these claims are based on non-enabling disclosure.

Art Unit: 2839

Just why melting would be used is unclear. It would prevent future separation and has not been shown to provide any advantages or purpose over standard connections. For claims 8, 75, "metal cover" lacks basis in pages 4-14. Claim 61 steps lack any basis in the spec and seem incorrect.

Claims 56, 61 and 69-92 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 56, 61 are unclear and just what they refer to is not understood. What "profile" is referred to? Claim 69 refers to first connector being "clean", claim 78 seems to contradict this limitation. Therefore just what coverage is intended is unclear. Therefore, for all claims in the case, term "clean" must be read on claim 78 "exposed to environment" contact. Clarification is required.

Claims 74, 75, dependency is incorrect. Claim 84 should recite "are each wiped ...".

Claims 56-85, 90-92 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Walker alone or taken in view of Davis and Cunningham.

For claim 56, Walker, fig. 1b connector interface includes uphole and downhole connector 60, 70 and self orienting profile. While above adequate, self orientation also suggested by Davis, fig. 2. For claim 69, the Walker contacts are maintained clean by covers 61, 72 and for claim 72, note piercing member on contact pad 20. For claims 78, 83, 84, obvious to replace

Art Unit: 2839

Walker contacts by ones like those of Cunningham that include wiping structure 65, 47 as well as contact to contact wiping. For claims 73, 76, 77, etc, obvious to use Walker with a system like that of Davis with means 108, 108 to provide dielectric at the interface 61, 72 or to use exposed contacts and dielectric coil as in Davis. Any of these changes would amount to change of one expedient for a like one.

Claims 65-68, 69, 73-85, 90-92 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hooper alone or in view of Dean.

For Hooper, "clean condition" does not define over Hooper contact system, fig. 1 at 17, 18, etc. For claims 67, 68 etc. Hooper teaches flushing of the contact area with fluid in 29 read as being in a reservoir and with check valve 36. Figs. 3-5 system includes covered (clean) contacts wiped by each other and by o-rings (wipers) 45, 70 as contacts are mated. Should the features be at issue, also obvious to include uphole, downhole wiring as more clearly shown by Dean at 13, 18.

Claims 69, 73, 76, 77-92 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Godfrey alone or in view of Schnatzmeyer and Morrison.

The Godfrey system includes uphole contact 234 and downhole contact 36 both maintainable in clean condition. Dielectric material 350a is applied at the contact interface. For claim 85, obvious to use a check valve in view of Schnatzmeyer, fig. 4 at 234. This would simplify the fluid system.

Art Unit: 2839

For claims 86-89 obvious to provide a contact heater and solder layer in view of Morrison. The Godfrey flushing feature could be omitted in such case.

Claims 2-56 and 61-92 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cunningham alone or in view of Busuttil, Walker, Davis and Morrison.

Claims 2, 26, 65 are readable on a string of three Cunningham type sections 17 each one with contacts 43, 59 at their ends used as taught by the patent, the contacts being cleaned before assembly and kept that way. The contacts are also cleaned by wiping of parts 39, 47. Note terms "clean condition" does not require contacts to be covered. Also obvious, claim 3, to form the contacts in the manner of those of Walker with covers and piercing members; claim 6, to provide oil or grease at the connection interface in view of Busuttil, Davis and Hooper. Claim 6 would be met by packing grease in the vicinity of contact 59 as is well known expedient and as taught by Busuttil or by system like that of Davis at 103, 108, etc.

For claim 19, the contacts would be meltable if heat were applied during course of use. Use of coils considered obvious since no purpose or advantage for this feature over conventional connection is seen.

Claim 2, lines 14-16 reference to "prior to being run downhole" does not structurally define over pipe string 17, 17, 17. For claims 19, etc, also obvious to provide contact heating and solder layer in view of Morrison to provide improved current path.

Art Unit: 2839

Claims 2-56 and 61-68 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chevalier alone or in view of Cunningham, Busuttil and Morrison.


Note Chevalier first, second and third sections, 11, 10, 13 with contacts as shown in fig. 2. The contacts are cleaned by wiping when joined. Also obvious to use Cunningham type wiping means and for claim 6 to provide oil or grease to the contacts in view of Busuttil. For claim 2, lines 14-16, see above discussion. Morrison is applied as above.

Claims 2 and 26 would more clearly define the invention if amended to add --- the fourth connector when fully installed remaining unmated and out of circuit and serving to mate only at a later time, after removal of the second section, with a replacement section ---. This is to indicate the page 2, lines 22-31 manner of use. Other language could be used and applicant should provide a discussion if this aspect is urged as basis for patentability.

Any inquiry concerning this communication should be directed to N. Abrams at telephone number 308-1729.

Abrams/ek

05/07/03

  
NEIL ABRAMS  
EXAMINER  
ART UNIT 322